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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,214	04/09/2001	Kenji Kawaguchi	501.39943X00	8045
20457	7590	01/20/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			DEAN, RAYMOND S	
		ART UNIT		PAPER NUMBER
		2684		

DATE MAILED: 01/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/828,214	KAWAGUCHI ET AL.	
	Examiner	Art Unit	
	Raymond S Dean	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1 - 11 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 - 3, 6, 7, 10, and 11 is/are rejected.
- 7) Claim(s) 4,5,8 and 9 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \*    c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Specification***

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Mitzutani et al. (US 2001/0022780 A1).

Regarding Claim 1, Mitzutani teaches a group communication method in which a plurality of communication terminals form a closed communication network and perform communication, said group communication method comprising a step in which a calling message including group identification information is broadcast from a first communication terminal to a large number of unspecified communication terminals

(Figure 1, Figure 3, Sections 0008, 0009, 0043, 0045, and 0046, the packet in Figure 3 is the calling message that is broadcast), and a step in which the first communication terminal receives response messages broadcast from other communication terminals and including the group identification information (Figure 3, Figure 5, Sections 0046, 0048, and 0049, the first communication terminal will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said first communication terminal that said group generation packet was received thus an inherent response message is taught), wherein the closed communication network is formed of the first communication terminal and at least one communication terminal which transmits the response message within a given time after the calling message is transmitted, and a group communication is performed by the communication message using the group identification information (Figure 1, Figure 3, Figure 5. Sections 0008, 0009, 0043, 0045, 0046, 0048, and 0049, the first communication terminal will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said first communication terminal that the group generation packet was received thus enabling a group communication to be performed).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzutani et al. (US 2001/0022780 A1) in view of Peters (US 6,601,093 B1).

Regarding Claim 2, Mitzutani teaches all of the claimed limitations recited in Claim 1. Mitzutani further teaches a group communication method wherein the group communication method includes a step in which the first communication terminal stores a terminal identification of the transmission source terminal of the response message received within a given time after transmitting the calling message as a group constituting terminal corresponding to the group identifier (Figure 4, Sections 0020 and 0021) and a step in which a control message indicative of the start of the group communication is transmitted to the group constituting terminal from the first communication terminal (Figure 5, Sections 0048 and 0049, step 202, which generates the group packet is the control message that indicates the start of the group communication).

Mitzutani does not specifically teach an address.

Peters teaches an address of a wireless communication terminal (Column 3 lines 16 – 43).

Mitzutani (Section 0078) and Peters (Column 6 lines 19 – 43) both teach wireless communication terminals that use the short range Bluetooth protocol in an Ad-Hoc network thus it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use the address method taught in Peters in the Ad-Hoc network of Mitzutani such that the data transmitted by the first communication terminal will be sent to the proper destination thus allowing the communication terminal corresponding to said destination to receive said data.

Regarding Claim 6, Mitzutani teaches a group communication method which performs communication by forming a closed communication network with a plurality of communication terminals, the group communication method comprising a step in which a calling message for forming the group broadcast from other communication terminals is received (Figure 1, Figure 3, Sections 0008, 0009, 0043, 0045, and 0046, the packet in Figure 3 is the calling message that is broadcast), a step in which a communication terminal which has a will to participate in the group broadcasts a response message including group identification information which the calling message indicates (Figure 3, Figure 5, Sections 0046, 0048, and 0049, the communication terminal that initiates the group will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said group initiating communication terminal that said packet was received thus an inherent response message is taught), and a step in which the calling message received from other communication terminal and a terminal identification which indicates a transmission source of the response message are stored as an identification of a group constituting terminal corresponding to the group identifier (Figure 4, Sections 0020 and 0021), wherein a closed communication network is formed of the communication terminal which becomes the transmission source of the calling

message and at least one communication terminal which transmits the response message within a given time after the transmission of the calling message, and group communication is performed by the communication message using the group identification information (Figure 1, Figure 3, Figure 5. Sections 0008, 0009, 0043, 0045, 0046, 0048, and 0049, the group initiating communication terminal will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said group initiating communication terminal that said packet was received thus enabling a group communication to be performed).

Mitzutani does not specifically teach an address.

Peters teaches an address of a wireless communication terminal (Column 3 lines 16 – 43).

Mitzutani (Section 0078) and Peters (Column 6 lines 19 – 43) both teach wireless communication terminals that use the short range Bluetooth protocol in an Ad-Hoc network thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the address method taught in Peters in the Ad-Hoc network of Mitzutani such that the data transmitted by the group initiating communication terminal will be sent to the proper destination thus allowing the communication terminal corresponding to said destination to receive said data.

Regarding Claim 10, Mitzutani teaches a communication terminal equipment which performs a group communication with other communication terminals comprising a transmission/reception circuit for transmitting and receiving a communication

message (Figure 2), a display device (Section 0019, notebook computers have displays), an input device manipulated by a user (Section 0019, notebook computers have keyboards which are input devices thus an inherent input device is taught), a storage part which stores a connection control program for controlling a transmission/reception of the communication message (Figure 2, Section 0044, processor controls transmission/reception thus an inherent storage of a control program for controlling transmission/reception is taught), and a processor which executes the connection control program, wherein the processor broadcasts the calling message including group identification information to a large number of unspecified communication terminals in response to an user input from the input device (Figure 2, Figure 3, Figure 5, Sections 0008, 0009, 0019, 0043, 0044, 0045, 0046, 0048, and 0049, processor controls transmission/reception thus an inherent storage of a control program for controlling transmission/reception is taught, notebook computers have keyboards which are input devices thus an inherent user input from said input device is taught ), stores an identification of the transmission terminals of the response message including the identification information received by the transmission/reception circuit (Figure 4, Sections 0020 and 0021), forms a group between the communication terminal equipment and the transmission terminal of the response message received within a given time after transmitting the calling message, and performs a control operation such that the group communication is performed using the group identification information (Figure 1, Figure 3, Figure 5. Sections 0008, 0009, 0043, 0045, 0046, 0048, and 0049, the group initiating communication terminal will only send data to the appropriate other

terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said group initiating communication terminal that said packet was received thus enabling a group communication to be performed).

Mitzutani does not specifically teach an address.

Peters teaches an address of a wireless communication terminal (Column 3 lines 16 – 43).

Mitzutani (Section 0078) and Peters (Column 6 lines 19 – 43) both teach wireless communication terminals that use the short range Bluetooth protocol in an Ad-Hoc network thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the address method taught in Peters in the Ad-Hoc network of Mitzutani such that the data transmitted by the group initiating communication terminal will be sent to the proper destination thus allowing the communication terminal corresponding to said destination to receive said data.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzutani et al. (US 2001/0022780 A1) in view of Peters (US 6,601,093 B1) and in further view of BJORNDAHL (US 2002/0065099 A1).

Regarding Claim 3, Mitzutani in view of Peters teaches all of the claimed limitations recited in Claim 2. Mitzutani in view of Peters does not teach a step in which, before the transmission of the control message indicative of the start of the group

communication, an encryption key to be used in the group communication is informed from the first communication terminal to the group-constituting terminal.

BJORNDALH teaches an encryption key that is used in a bi-directional short-range communication link between a private base station and a mobile terminal (Section 0035).

Mitzutani in view of Peters and BJORNDALH teach a wireless communication terminal that communicates via a wireless short range bi-directional link thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the encryption method taught in BJORNDALH as a step before the step 202, which is the generation of the group packet, in Mitzutani in view of Peters such that the communication link between the first communication terminal and the group constituting terminal will be secure thus enabling said link to be immune to eavesdropping or interception.

7. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzutani et al. (US 2001/0022780 A1) in view of Peters (US 6,601,093 B1) and in further view of Nakamura et al. (5,771,352).

Regarding Claim 7, Mitzutani in view of Peters teaches all of the claimed limitations recited in Claim 6. Mitzutani in view of Peters further teaches a communication terminal which receives the calling message for forming the group from other communication terminal stores group kind information indicated by the calling message and broadcasts the response message (Figure 1, Figure 3, Figure 4, Figure 5,

Sections 0008, 0009, 0020, 0021, 0043, 0045, 0046, 0048, and 0049, the first communication terminal will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said first communication terminal that said packet was received thus an inherent response message is taught) in response to an input manipulation indicating the participation of a terminal user to the group (Section 0019, notebook computers have keyboards as input devices thus an inherent input means for initiating responses is taught).

Mitzutani in view of Peters does not specifically teach displaying group kind information.

Nakamura teaches displaying group kind information (Column 3 lines 34 – 37 and lines 51 – 53).

Mitzutani in view of Peters and Nakamura (Column 2 lines 48 – 51) teach a wireless communication terminal that communicate with an unspecified number of terminals via a wireless bi-directional link thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the displaying means taught in Nakamura in the wireless communication terminal of Mitzutani in view of Peters such that a user of said wireless communication terminal would have the flexibility to decide what wireless group connections said user would like to make.

Regarding Claim 11, Mitzutani in view of Peters teaches all of the claimed limitations recited in Claim 10. Mitzutani in view of Peters further teaches a communication terminal wherein when the calling message from other terminal

equipment is received by the transmission/reception circuit, the processor stores group kind information included in the calling message and broadcasts a response message including the group identification information (Figure 2, Figure 3, Figure 4, Figure 5, Sections 0020, 0021, 0044, 0046, 0048, and 0049, processor controls transmission/reception thus an inherent storage of a control program for controlling transmission/reception is taught, the first communication terminal will only send data to the appropriate other terminals when said terminals respond with the packet in Figure 3, which is the group generation packet, said response indicates to said first communication terminal that said packet was received thus an inherent response message is taught) in response to user input from the input device (Section 0019, notebook computers have keyboards as input devices thus an inherent input means for initiating responses is taught).

Mitzutani in view of Peters does not specifically teach displaying group kind information.

Nakamura teaches displaying group kind information (Column 3 lines 34 – 37 and lines 51 – 53).

Mitzutani in view of Peters and Nakamura (Column 2 lines 48 – 51) teach a wireless communication terminal that communicate with an unspecified number of terminals via a wireless bi-directional link thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the displaying means taught in Nakamura in the wireless communication terminal of Mitzutani in view of

Peters such that a user of said wireless communication terminal would have the flexibility to decide what wireless group connections said user would like to make.

***Allowable Subject Matter***

8. Claims 4, 5, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim 4, Mitzutani in view of BJORNDAHL teaches the use of encryption to safeguard the data that is transmitted in a wireless network. The prior art of record, however, fails to show a group communication method wherein the response message includes a public key of a transmission source terminal, and the first communication terminal informs transmission source terminals of respective response messages by encrypting an encryption key to be used in the group communication by the public key.

Regarding Claim 5, Mitzutani teaches the use of a keep alive message transmitted from the wireless terminal that wants to stay connected to the Ad-Hoc group (Section 0054). The prior art of record, however, fails to show a group communication method wherein the group communication method further includes a step in which respective group constituting terminals including the first communication terminal respectively measure an encryption key change timing at random and when time

reaches the encryption key change timing before receiving a keep-alive message from other terminal, the keep-alive message including the group identifier is broadcast, a step in which the terminal which becomes a transmission source of the keep-alive message informs a transmission source terminal of the response message to the keep-alive message of a new encryption key, and a step in which the terminal which becomes transmission source of the keep-alive message transmits a control message which indicates the start of the group communication after the lapse of a given time from the transmission of the keep-alive message, wherein the encryption key to be used in the group communication is changed over in response to the transmission of the control message.

Regarding Claim 8, Mitzutani teaches a wireless communication terminal that is excluded from a group of wireless communication terminals (Section 0054). It is also well known in the art that when there are no group constituting terminals present except for the own terminal the group communication is finished. This is an inherent characteristic of any wireless group network. The prior art of record, however fails to show a communication terminal that receives a communication message indicating the leaving from the wireless group from the departing communication terminal.

Regarding Claim 9, Mitzutani teaches the method of adding any number of unspecified wireless communication terminals to the group thus allowing said wireless communication terminals to participate in an established group (Section 0008) but the prior art of record fails to show a group communication method wherein the calling message includes information whether group communication is to be opened or not,

and when the group communication is opened, a control procedure necessary for adding a group constituting terminal between the constituting terminal of the closed communication network formed in an initial state and a newly participating communicating terminal is executed.

### ***Conclusion***

9. Any inquiry concerning this communication should be directed to Raymond S. Dean at telephone number (703) 305-8998.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology center 2600 only)

Hand -delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

The image shows two handwritten signatures. The signature on the left is "Nay Maung" and the signature on the right is "Raymond S. Dean". They are written in black ink on a white background.